

relationship;

b) a plurality of circuit cards, each of said circuit cards being mounted to one of said circuit card connectors, each of said circuit cards having a transmitter LED and a receiver photodiode formed thereon;

c) an optical pathway formed between each of said circuit cards, each optical pathway forming a respective independent parallel optical connection between said transmitter LED on one of said circuit cards and said receiver photodiode on any one of said circuit cards; and

d) wherein said circuit cards are maintained in fixed relationship to one another via said common backplane to maintain continuous optical intercard communications between each of said circuit cards when said circuit cards become intermittently dislodged from electrical connection to said backplane, said intercard communications being conducted independent of shock-susceptible wired connectors.

8. (Amended) A method for operatively interconnecting circuit cards within a computer to enable data to be transmitted and received therebetween comprising:

a) forming a common backplane having a plurality of circuit card connectors disposed in spaced apart relation thereon for supporting circuit cards in a generally parallel

upright relationship;

b) providing a plurality of circuit cards having a transmitter LED diode and a receiver photodiode formed thereon;

c) mounting each of said circuit cards to one of said circuit card connectors;

d) forming an optical pathway between each of said circuit cards;

e) forming independent parallel optical connections between said transmitter LED on one of said circuit cards and said receiver photodiode on any one of said circuit cards; and

f) spatially arranging each of said circuit cards relative to one another via said common backplane to maintain continuous optical intercard communications between each of said circuit cards when said circuit cards become intermittently dislodged from electrical connection to said backplane, said intercard communications being conducted independent of shock-susceptible wired connectors.

15. (Amended) A shock-resistant system for operatively interconnecting circuit cards within a computer system to enable data to be transmitted and received therebetween comprising:

a) a common backplane having a plurality of circuit card connectors disposed in spaced apart relation thereon for

supporting circuit cards in a generally upright parallel relationship;

b) a plurality of circuit cards, each of said circuit cards being mounted to one of said circuit card connectors, each of said circuit cards having an optical communications device formed thereon;

c) an optical pathway formed between each of said circuit cards, each optical pathway forming a respective independent parallel optical connection between said optical communications devices; and

d) wherein each of said circuit cards are maintained in fixed relationship to one another via said common backplane to maintain continuous optical intercard communications between each of said circuit cards when said circuit cards become intermittently dislodged from electrical connection to said backplane, said intercard communications being conducted independent of shock-susceptible wired connectors.